

PATENT

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**ABSTRACT OF THE DISCLOSURE**

A charged particle beam apparatus is provided which comprises a charged particle source for producing a primary beam of charged particles, aperture means for collimating said primary beam of charged particles, wherein said aperture means is adapted to switch between a collimation of said primary beam to a width appropriate for serial imaging of a sample as well as a collimation of said primary beam to a width appropriate for parallel imaging of said sample, a condenser lens for condensing said primary beam of charged particles, scanning means for deflecting said primary beam of charged particles, an objective lens for focusing said condensed primary beam, a sectorized detector for detecting a secondary charged particles. Also, several different operation modes of the beam apparatus are described allowing for serial imaging as well as parallel imaging.